## **Notice to Bidders**

## City of Columbus, Indiana

**Date:** April 17, 2015

Response Due Date and Time: May 19, 2015, no later than 9:45 a.m. Eastern

Notice is hereby given that the City of Columbus, Bartholomew County, Indiana will receive sealed bid packages for "Self Contained Breathing Apparatus (SCBA)", at:

City of Columbus Clerk-Treasurer's Office City Hall 123 Washington Street Columbus, Indiana 47201

Sealed bids must be received on or before May 19, 2015, 09:45 a.m. local time, with the envelope clearly marked "Bid on Self Contained Breathing Apparatus (SCBA)" on the outside of the envelope. The bids will be opened and read aloud at the City's Board of Works meeting to be held at 10:00 a.m. on May 19, 2015 in the City Hall Council Chambers. No late bids will be accepted.

Attached are the detailed specifications for the SCBA, as well as bid submission requirements. It is anticipated that the City through its Board of Works will announce its vendor selection on May 26, 2015 at 10:00 a.m. Therefore, bids must remain open for such a time to accommodate the selection process outlined above and the formation of an agreement.

This bid notice is for 70 packs, 150 bottles, 110 Face pieces & 25 hard shell cases for pack storage. The bidder agrees to submit as one cumulative bid.

Bids will be evaluated on any and all factors deemed relevant by the City which shall include, but not be limited to, total cost of the pieces of equipment, and level of responsiveness to the requirements set forth in the attached detailed specifications.

All documents submitted as part of the bidder's proposal will be deemed confidential during the evaluation process. Bidder proposals will be not available for review by anyone other than the evaluation team or its designated agents.

The awarding agency reserves the right to reject any and all proposals, to award the contract to other than the lowest proposal, to negotiate the terms and conditions of all and/or any part of the proposals, and, in general, to make the award in the manner as determined to be in their best interest and its sole discretion.

The awarding agency is not responsible for any costs or expenses incurred in preparing and submitting information in response to this Bid notice.

All material submitted will become the property of the awarding agency. Late proposals, and faxed or e-mailed proposals, will not be accepted.

The awarding agency or its designee may request, after the submission date, additional information or written clarification of a bid. However, proposals may not be amended after the submission date unless permitted by the awarding agency.

Please refer any questions to:

Dan Bates
Deputy Chief of Operations
Columbus Fire Department
812-376-2586
dbates@columbus.in.gov

# Self-Contained Breathing Apparatus

(4500 psig)

## **Product Specification**

# I. Approvals:

- 1.) Equipment shall be approved by the National Institute for Occupational Safety and Health (NIOSH), under 42 CFR, Part 84 for chemical, biological, radiological, and nuclear protection (CBRN) with 45-minute-rated service life and compliant with all requirements of the National Fire Protection Association's 2013 Edition of NFPA-1981 Standard on Open-Circuit Self-Contained Breathing Apparatus.
- 2.) Units equipped with integrated PASS device must meet requirements of NFPA 1982, 2013 edition.

### II. Specific Requirements:

#### Face piece

- 1.) Face piece shall have removable inhalation check valve to prevent exhaled air from entering and contaminating regulator (demand valve) or equivalent.
- 2.) Face piece shall have open port to provide miniscule breathing resistance when regulator is not attached or equivalent.
- 3.) Face piece shall provide means to display to user with visual indicators for HUD.
- 4.) Face piece shall have icon for HUD system status indicators.
- 5.) Face piece shall have regulator attachment that does not bear any weight on lens.
- 6.) Face piece shall have minimum effective field of view of 86% and overlapping field of view of 122% without attached component.
- 7.) Face piece shall be available in three sizes in Hycar Rubber (small, medium, large) or equivalent.
- 8.) Face piece shall be constructed of flame/heat resistant assembly: Kevlar Head Harness (4-pt. adjustable) or equivalent.
- 9.) Face piece shall have lens that shall be comprised of non-shatter type material.

#### Mask-Mounted Regulator (Demand Valve)

- 1.) When doffing regulator, regulator disengagement shall simultaneously stop air flow and release regulator.
- 2.) Regulator shall be equipped with variable flow bypass.
- 3.) Regulator shall not have exposed wiring in order to prevent snags and increase product durability.

#### Heads-Up Display (HUD)

- 1.) HUD shall be powered from central power system.
- 2.) HUD System shall be immune to radio frequency interference (RFI) and must function properly in close proximity to fire service hand-held radios.
- 3.) HUD System shall separate pressure indicators from status indicators.
- 4.) HUD system shall provide user with remaining cylinder air volume, available in four increments through series of colored LED's: (or equivalent)

o Four green lights
o Three green lights
o Two flashing amber lights
o One flashing red light

76 to 100% cylinder volume
51 to 75% cylinder volume
36 to 50% cylinder volume
0 to 35% cylinder volume

- 5.) HUD status indicators shall be icon-based and display battery life warning, PASS alarms, EVACUATE indicator, and secondary alarm indicator or equivalent.
- 6.) Buddy lights shall be visible from outside of firefighter's face piece or equivalent.

#### **Universal Air Connection (UAC)**

- 1.) System shall be capable of:
  - 1.) Refill within immediately dangerous to life or health (IDLH) atmospheres.
- 2.) Quickly refilling (approximately one-minute duration) SCBA cylinder from mobile compressor, cascade system or RIT pack.
- 3.) Extending wearer's air supply over longer duration when remote cascade system, airline hose or other compressed gas source is located within remote area.

#### Pressure Reducer (First-Stage Regulator) with Primary Low Pressure Warning Device

- 1.) Pressure reducer shall incorporate downstream valve to ensure fail-safe design when in open position.
- 2.) Pressure reducer shall incorporate low pressure warning device.
- 3.) Low pressure warning device shall be an air-actuated, continuous warning alarm, automatically operating when supply cylinder air pressure reaches approximately 35% of rated service life.
- 4.) Low pressure warning device shall not displace breathing air while in use.
- 5.) Low pressure warning device shall be user-accessible while wearing SCBA.
- 6.) Pressure reducer reduces cylinder pressure to outlet pressure not to exceed 115 psi; outlet pressure must be adjustable.
- 7.) Pressure reducer shall have two options for cylinder connection type: threaded or quick-connect.
- 8.) Quick-connect connection shall not be removable from cylinder while under pressure.
- 9.) Pressure reducer shall have two options for cylinder connection location: remote connection or direct connection.
- 10.) Pressure reducer shall be sealed system that does not allow moisture to enter valve components.

#### **Cylinders**

- 1.) Cylinders with 4500 psig operating pressure must be available in 45-minute durations.
- 2.) Cylinders must be available in the operating pressure: 4500 psig.
- 3.) Cylinder shall be constructed of deep-drawn, seamless aluminum liner that is fully wound over entire surface (except for thick neck area) with high-strength carbon fiber filaments impregnated with epoxy resin.
- 4.) Cylinder shall contain cylinder valve that shall incorporate pressure gauge to indicate cylinder pressure at all times. Hand wheel shall be placed at 90° angle from cylinder axis.
- 5.) Cylinder valve shall be available in two options: remote connection or direction connection
- 6.) Cylinder valve shall incorporate flow control insert to limit air flow over hand wheel's first half-rotation, minimizing propulsion thrust in event that cylinder is mishandled.

#### **PASS Device**

- 1.) PASS device shall contain power, control and battery modules.
- 2.) Power module shall provide power to all electronic SCBA PASS components from battery module and act as central power system or equivalent.
- 3.) PASS Device and power module shall act as central command center, distributing all information and data among electronic components or equivalent.
- 4.) Expected battery service life shall be 4 to 6 months on average for units with speaker module.
- 5.) Control module shall have analog and digital display for added redundancy.
- 6.) Control module shall automatically provide information to user when placed in upright position. Device can be manually activated by pressuring reset button or equivalent.
- 7.) PASS device shall use single line to connect power and control module or equivalent
- 8.) Control module shall have alarm button to activate full alarm and is to be illuminated or equivalent.
- 9.) Power module shall be equipped with dual sound emitters; sound emitters shall perform at minimum 100 dBa in room temperature or equivalent.
- 10.) PASS device shall be capable of storing up to 25 hours of use information in event log form that are generated each time SCBA is pressurized. Event logs must indicate on/off cycles, alarms, alarm reset, and tagging events.
- 11.) PASS device shall be capable of storing periodic logs. Periodic logs must indicate cylinder pressure for each SCBA pressurization stored at 15-second intervals.
- 12.) PASS device's event and periodic logs shall provide ability to download to personal computer for maintenance records or for use in incident investigations.
- 13.) PASS device shall be immune to radio frequency interference (RFI) and must function properly in close proximity of fire service hand-held radios.
- 14.) PASS device shall employ gasket perimeter seal to provide highest protection level against water ingress, while providing ability to upgrade or repair electronics or equivalent.
- 15.) Control module shall have service mode that provides ability to see number of hours used, connect to PC and firmware versions or equivalent.
- 16.) Control module shall incorporate rubber boot for added protection and is to be replaceable or equivalent.

#### Speaker Module

- 1.) Speaker module shall provide amplified speech.
- 2.) Speaker module shall provide at minimum, 70 dBa output.
- 3.) Speaker module shall be powered by a battery power system.
- 4.) Speaker module shall be capable of passing NFPA heat and immersion leakage test (not NFPA-required).
- 5.) Speaker module shall easily be attached and removed without special tools.
- 6.) Speaker module shall have light to indicate that device is powered on.
- 7.) Speaker module shall have on/off button to allow user to manually power off as needed.

#### **Carrier and Harness**

- 1.) Shoulder harness shall be padded or equivalent.
- 2.) Shoulder harness shall have retro-reflective markings for better visibility within low light conditions.
- 3.) Shoulder harness shall have chest strap.
- 4.) Shoulder harness shall have accessory attachment point available for facepiece or pouch.
- 5.) Waist pad shall be:
- Adjustable swiveling standard pad attached to metal bracket that has three positions and automatically centers or equivalent.
  - 6.) Back plate cylinder band must be metal.
  - 7.) Waist straps shall be double-pull forward design or equivalent.
  - 8.) Harness design shall have regulator keeper for storage that can be attached to waist strap or chest strap or equivalent.
  - 9.) Regulator keeper shall allow regulator to be connected at any angle or equivalent.

#### Weight

- 1.) Weight of SCBA shall not exceed 24 lbs.
- 2.) Weight of face piece (without regulator) shall not exceed 1.4 lbs.

#### **III. Warranty, Service and Maintenance Requirements:**

#### Warranty

- 1.) Details of warranty must be clearly stated indicating warranty coverage of the components of the SCBA, accessories and optional equipment on the bid.
- 2.) Warranty statement must include defined length of warranty for each component, accessory and optional piece of equipment.
- 3.) Warranty statement must include defined amount of warranty coverage on each component, accessory and optional piece of equipment.
- 4.) Electronics, Speaker Amp, HUD, frame, pneumatics components individual warranties must be addressed.

#### Service and Maintenance:

- 1.) Bidder must have a Service, Repair and Warranty center building within 100 miles of Columbus Fire Department Headquarters, 1101 Jackson Street, Columbus, Indiana, 47201.
- 2.) Bidder must have road service technicians trained to the full level of the SCBA being bid and able to respond on CFD location to emergency breakdowns of equipment within 24 hours.
- 3.) Bidder must supply basic field service training to fire department members who will be named by Chief's of Columbus Fire Department.
- 4.) Bidder must be capable of on station annual flow testing at Columbus Fire Department location(s).

List and define exception taken below:
List and define exception taken below.